

3531  
O-T-P-E  
JUN 25 2007  
In R  
App  
CURRENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Davis, David Donald

*Attorney for Applicant*

Pursuant to the Notice of Appeal filed concurrently herewith, Applicants respectfully request a Pre-Appeal Brief Conference and Review of the outstanding rejections in the present case, and also the withdrawal of these rejections. The reasons for this Request are as follows:

## REMARKS

The outstanding rejection of claims 2-5, 10-13, 15, 18, and 21-22 under 35 U.S.C. 103(a) based on a combination of Furuishi (JP 2000-306226) in view of Higashiya et al. (JP 06-012807) should be reversed because a *prima facie* case of obviousness has not been established. The proposed combination of references does not teach or suggest all of the features and limitations of the present claims, as required by Section 2143.03 of the MPEP. Moreover, no teaching or suggestion has been cited from either reference to justify the combination that is actually proposed, as required by Section 2143.01 of the MPEP. The rationale presented by the Examiner would clearly result in an unworkable device, or at least a device that would not function according to the intended purposes of either cited reference. The Examiner has also improperly attempted to read limitations from the Specification into the claims.

With respect to independent claims 21 and 22 specifically, the rejection is deficient because the proposed combination fails to teach or suggest all of the features of the independent claims, and the Examiner's interpretation of the claim language fails to consider all of the recited limitations. Both of independent claims 21 and 22, for example, require that a cavity is located on the air outlet end of the head slider, near the electromagnetic transducer of the slider, and between the transducer and the rearmost portion of the slider. Neither reference, alone or together, teaches or suggests such features, and the Examiner's interpretation of the language ignores significant features of the claims.

The Examiner asserts, on page 5 of the Office Action mailed February 22, 2007, that "the cavity is only required to be between the transducer and a portion, section or location **near or close to** the rear." (Emphasis in original). This assertion is clearly erroneous. The claims do not merely define that the cavity is located between the transducer and a "rear" portion of the head slider. Instead, the independent claims unambiguously recite that the cavity is located between the transducer and the portion of the slider that is most rear to the slider. This distinction in the claims has received no effective consideration during prosecution.

By definition, the transducer and the claimed rearmost portion are separately recited, and are therefore not the same element. Moreover, at least one other element (the cavity) is recited to be located between these two separate elements. The claimed rearmost portion must therefore be at least more to the rear than the transducer, or else the claimed element could not be the rearmost portion. Accordingly, no matter how broadly the Examiner chooses to interpret the

language of the present claims, any reasonable interpretation of the claims is still required to conclude that the transducer is located on the side of the claimed cavity away from the very end of the slider. Not every “portion, section or location near or close to the rear” will read upon the “rearmost portion.” The repeated failure by the Examiner to give reasonable consideration to these clearly recited claim terms, by itself, warrants reversal of the outstanding rejection.

The rejection is further deficient under Section 2143.01 because the proposed motivation for combining the two references does not come from the references. The Examiner correctly admits that Furuishi does not teach or suggest the claimed cavity of the present invention. The Examiner relies only upon Higashiya for teaching or suggesting such features, and asserts that Higashiya’s stated purpose for supplying its disclosed recesses 1 can simply be applied to Furuishi in the same way. The two respective devices disclosed by Furuishi and Higashiya though, are not at all similar in structure, and there is simply no teaching or suggestion to combine the two references as the Examiner proposes.

Higashiya’s recesses 1 are disposed only along Higashiya’s side rails 11 for catching dust from a disk surface. The only side rails disclosed by Furuishi, on the other hand, are elements 45 and 46, which are significantly narrower than Higashiya’s rails 11, and one of ordinary skill in the art would not expect such narrow rails to be able to accommodate the wide circular recesses taught by Higashiya. Additionally, Furuishi’s rails 45 and 46 are shown to be significantly placed away from the disk facing surface (by elements 28, 33, 48), and therefore these rails still could not collect the dust from the disk as the Examiner asserts.

The forced combination of Higashiya with Furuishi therefore, would necessarily result in an unworkable device, or at least one that could not function according to its intended purposes. The only air bearing surfaces disclosed by Furuishi that could accommodate the broad recesses of Higashiya would be the air bearing surfaces 28, 36, or 37. Furuishi clearly teaches though, that the surface area of such air bearing surfaces is an important factor in the amount of negative pressure on the body of the slider. The casual placement of Higashiya’s recesses on any of Furuishi’s air bearing surfaces would drastically affect the amount of negative pressure that Furuishi clearly seeks to control. There could also be no obvious purpose to add such recesses to Furuishi’s device, because Furuishi already places dust-catching steps in front of its air bearing surfaces. Additional recesses like Higashiya’s would simply be a nonobvious redundancy. The rejection is thus deficient because it cites to no affirmative teaching or suggestion from either

reference to overcome these clear deficiencies. Accordingly, for any and all of the foregoing reasons, as well as all of those of record (incorporated by reference herein), the rejection of independent claims 21 and 22 should be reversed.

With respect to claims 2 and 10 specifically, the rejection is further deficient under the requirements of Section 2143.03. Claims 2 and 10 of the present invention both feature, among other things, that the depth *z* of the cavity is a function of both of the length and width (*x*, *y*) dimensions of the same cavity. In other words, claims 2 and 10 unambiguously define a relationship between the depth of the cavity and its length/width. The outstanding rejection of record, however, fails to even assert that any such relationship is ever taught or suggested by either prior art reference, alone or together. Instead, the Examiner merely cites to teachings from the present Specification that describe some *preferred* measurement ranges to this depth, but which measurements are never recited in any of the present claims.

Furthermore, Higashiya only shows that all of its recesses have a single, constant depth. Higashiya therefore clearly teaches away from any inference that its constant depth could ever vary by or be related to either of the length or width of such recesses. The citations to portions of the present Specification regarding the depth measurements are therefore completely irrelevant to the actual features of the claims that are recited. Such citations are also an inappropriate attempt to read limitations from the Specification into the claims. The rejection of claims 2 and 10 should be reversed for at least these reasons as well.

The rejection of claims 4-5 and 12-13 should also be reversed because the limitations from these claims have been given no affective consideration either. The Examiner merely appears (page 3 of the February 2, 2007 Office Action, third paragraph) to simply dismiss the limitations as being “method limitations.” This assertion though, is also a clear error, as is also the failure to give any reasonable consideration to these features from the claims. All of claims 4-5 and 12-13 recite structural limitations regarding the volume of the claimed cavity. None of these four claims describes a method of forming the cavity or head slider, as erroneously asserted by the Examiner.

As repeatedly explained on the record, and never actually challenged by the Examiner, all of claims 4-5 and 12-13 define the structural volume of the claimed cavity, and not a method of forming it. Claims 4 and 12 define such a volume as being equivalent to the amount of material that projects from the slider when a predetermined voltage is applied, and if the

cavity were not present. Claims 5 and 13 similarly define the volume as being equivalent to an amount of material that would float less than the transducer when the same voltage is applied, and no cavity were present. These amounts of material are therefor structural limitations. The fact that language resembling functional language is required to describe these features does not render the limitations mere process limitations. Section 2113 of the MPEP even expressly directs the Examiner, where claims apparently contain both structural limitations and functional language, to still give full consideration to any structure implied by the alleged process steps. In the present case though, the structure is not merely implied. The structural volume of the cavity is clearly defined, and this structural volume has been given no consideration on the record by the Examiner. For at least these reasons, the rejection of claims 4-5 and 12-13 should also be reversed.

Lastly, the separate rejection of claims 15 and 18 should also be reversed. The rejection asserts that the broad cavity 22 in Furuishi's slider can somehow be interpreted to be a "groove" according to the present invention. This assertion, however, is clearly contradicted by both the present Specification, as well as the clear definition of the term "groove" in the dictionary. Any recess or cavity is not automatically equivalent to a groove, as apparently asserted by the Examiner. Merriam Webster's Collegiate Dictionary, 10<sup>th</sup> Ed., for example, defines the term as being "a long narrow channel or depression." Furuishi's portion 22, on the other hand, cannot meet this plain meaning of the term. The broad recess 22 is neither long nor narrow. No person of ordinary skill in the art would reasonably interpret the feature of Furuishi's device to read upon the claimed groove of the present invention. Accordingly, the individual rejection of claims 15 and 18 should also be reversed.

Respectfully submitted,

**Customer No. 24978**

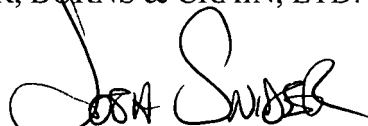
June 22, 2007

300 South Wacker Drive, Ste. 2500  
Chicago, Illinois 60606  
Telephone: (312) 360-0080  
Facsimile: (312) 360-9315

P:\DOCS\3531\68507\BN6980.DOC

GREER, BURNS & CRAIN, LTD.

By

  
Josh C. Snider  
Registration No. 47,954



Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)

Approved for use through xx/xx/200x. OMB 0651-00xx

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

3531.68507

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on June 22, 2007

Signature

Typed or printed name Josh C. Snider

Application Number

10/677,895

Filed

October 2, 2003

First Named Inventor

Masaki Kameyama

Art Unit

2627

Examiner

Davis, David Donald

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒

attorney or agent of record.

47,954

Registration number

☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34

Signature

Josh C. Snider

Typed or printed name

(312) 360-0080

Telephone number

June 22, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐

\*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.